

**Miller, Robert**

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**From:** Grisier, Mary  
**Sent:** Tuesday, September 26, 2017 5:32 PM  
**To:** Hopkins, Yvette; Miller, Robert  
**Subject:** Lehua island fish kill (Potential HLE)  
**Attachments:** Complaint KA-17-08 update. revised.pdf

Hi Yvette and Bob,

Here's an update on the sample analysis of fish found offshore of Lehua Island after the second diphacinone application. Pretty low levels found. I'll let you know as I get more information.

Mary Grisier

**From:** Matsuda, Thomas K [mailto:Thomas.K.Matsuda@hawaii.gov]  
**Sent:** Tuesday, September 26, 2017 12:25 PM  
**To:** Grisier, Mary <Grisier.Mary@epa.gov>; TenBrook, Patti <TenBrook.Patti@epa.gov>; Magnan, Eric <Magnan.Eric@epa.gov>; Chen, Christopher <CHEN.CHRISTOPHER@EPA.GOV>  
**Cc:** Shimabukuro-Geiser, Phyllis <Phyllis.Shimabukuro-Geiser@hawaii.gov>; McHugh, John <john.mchugh@hawaii.gov>; Ann Kam <Ann.M.Kam@hawaii.gov>; Westergard, Cal J <cal.j.westergard@hawaii.gov>; Chen, Jingyu <JingYu.Chen@hawaii.gov>; Victoria Matsumura <Victoria.J.Matsumura@hawaii.gov>  
**Subject:** Revised table.

Aloha Mary et al,

Per our discussion, I have revised the table by adding the a.i. Diphacinone in the heading of the last column of the table.

Thank you for your continued support.

Best Regards,  
Tom

-001

Update to EPA on Complaint KA -17-08  
Tom Matsuda, Pesticides Program Manager  
September 26, 2017 (revised)

Lead Inspector Ann Kam is putting together investigation jacket for submittal to HDOA Pesticide Case -001 Developer.

Inspector Kam has interviewed aerial applicator pilot Robert Scherzinger and Ground Supervisor Michael Walker about their role in the 2<sup>nd</sup> application over Lehua Island which resulted in a fish kill of about 45 fish.

Splitting samples with Aphis USDA, approximately 12 dead fish samples were received by our CAL during the week of September 11<sup>th</sup>. Fish were putrid and in various stages of decomposition. Initial dissection of the one "best" sample indicated that organs were melted away and hard to distinguish. Not too much tissue could be extracted from the gill section. Note that 5 fish were not included in analysis due to the overall condition of each fish.

An email from US Fish and Wildlife mentions looking for fluorescence on/in fish from the diphacinone bait. This is taken into consideration and the use of a UV light was explored. Fluorescence may help determine if fish ingested pellets or skin soaked in diphacinone laden seawater.

A temporary hold was put in place to dissect the remaining fish and determine what sampling could be done. It was determined to do 3 different sample types. During the Week of September 18<sup>th</sup>, test were run for the analysis indicated below. CAL Chemist reported preliminary findings to the Pesticides Program Manager.

| Sample No. | Fish Nos.    | Perform Analysis for:   | Indication of Fluorescence         | Detection Levels of a.i. Diphacinone (Preliminary) |
|------------|--------------|---|------------------------------------|--|
| 1.         | 1            | 1 fish in best condition. Muscle only sample.                             | UV fluorescence found outside skin | 0.0444 ppm   |
| 2.         | 2,3,4,5,6,9  | Muscle sample from 6 fish, combined and run analysis.                     | No UV found outside skin           | 0.0263 ppm   |
| 3.         | 1,3,4,5      | Degraded organs from 4 fish, combined and run analysis.                   | Not applicable                     | 0.0756 ppm   |
|            | 7,8,10,11,12 | Unable to run analysis. Fish too badly decomposed, no muscle tissue left. |                                    |  |

HDOA has been alerted that another set of samples are available from the State of Hawaii Department of Aquatic Resources (DofAR) who collected fish samples about 5 – 7 days after each aerial application. A query is being made to DOFAR on the condition of the fish. Awaiting response.